

April 2, 2009

RAINSOFT
AQUION WATER TREATMENT PRODUCTS
YE LIU
2080 E. LUNT
ELK GROVE VILLAGE IL 60007

Re: Description: WATER TREATMENT DEVICE-ACTIVATED CARBON
Manufacturer: RAINSOFT
Product Name: QRS WHOLE HOUSE CARBON FILTERS (POE)
Model Number(s): QRS 844 H, QRS 1044 H, QRS 1054 H AND QRS 1354 H (POE)
Product File No: 20090082

The specifications and/or plans for this plumbing product have been reviewed and determined to be in compliance with chapters Comm 82 through 84, Wisconsin Administrative Code, and Chapters 145 and 160, Wisconsin Statutes.

The Department hereby issues an approval based on the Wisconsin Statutes and the Wisconsin Administrative Code. This approval is valid until the end of April 2014.

This approval is contingent upon compliance with the following stipulation(s):

- This product has undergone sufficient testing to document the product's ability to reduce only those contaminants and/or substances as specified in this approval letter when the product is installed and maintained in strict accordance with the manufacturers published instructions.
- Where the Department of Natural Resources (DNR) has jurisdiction, a written approval may be required prior to installation of this product in a water supply system to reduce the concentration of a contaminant that exceeds the primary drinking water standards contained in ch. NR 809, Wis. Admin. Code, the enforcement standards contained in ch. NR 140, Wis. Admin. Code, or for a water supply system that is subject to a written advisory opinion by the DNR. For more information contact the DNR Section of Private Water Systems, P.O. Box 7921, Madison, WI 53707, telephone (608) 266-3415.
- If these approved devices are modified or additional assertions of function or performance are made, then this approval shall be considered null and void, unless the change is submitted to the department for review and the approval is reaffirmed.

Based on testing data submitted to and reviewed by the department, this approval recognizes that these plumbing products will reduce the concentration of contaminants as specified on pages 1 through 4 of this letter.

AESTHETIC CONTAMINANT REDUCTION CAPABILITIES
PRODUCT FILE NUMBER 20090082
TABLE 1 OF 2

Flow Rates: QRS 844 H = 22.7 liters per minute (lpm) [6.0 gallons per minute (gpm)]
 QRS 1044 H = 30.3 lpm (8.0 gpm)
 QRS 1054 H = 37.9 lpm (10 gpm)
 QRS 1354 H = 45.4 lpm (12.0 gpm)

Capacities: QRS 844 H = 340,687 liters (l) [90,000 gallons (gals.)]
 QRS 1044 H = 529,958 l (140,000 gals.)
 QRS 1054 H = 757,082 l (200,000 gals.)
 QRS 1354 H = 1,400,602 l (370,000 gals.)

Tested Contaminant	Influent Challenge (mg/l) ¹
Chlorine (free)	2.0 ± 10%

Other Conditions: the contaminant reduction performance capabilities displayed for Table 1 of 2 were verified by testing conducted in accordance with NSF *International* Standard 42. To qualify for free chlorine reduction, the device must reduce the influent challenge concentrations by ≥ 50%; meeting the free chlorine reduction requirements also qualifies the device for the reduction of aesthetic, organic, taste and odor reduction (e.g. geosmin, methylisoborneol); this does not include hydrogen sulfide.

¹ = milligrams per liter (mg/l) are equivalent to parts per million (ppm)
 ± = plus or minus

≥ = greater than or equal to

HEALTH EFFECTING ORGANIC CONTAMINANT REDUCTION CAPABILITIES
PRODUCT FILE NUMBER 20090082
TABLE 2 OF 2

Flow Rates: QRS 844 H = 22.7 liters per minute (lpm) [6.0 gallons per minute (gpm)]
 QRS 1044 H = 30.3 lpm (8.0 gpm)
 QRS 1054 H = 37.9 lpm (10.0 gpm)
 QRS 1354 H = 45.4 lpm (12.0 gpm)

Capacities: QRS 844 H = 76,655 liters (l) [20,250 gallons (gals.)]
 QRS 1044 H = 119,241 l (31,500 gals.)
 QRS 1054 H = 170,344 l (45,000 gals.)
 QRS 1354 H = 315,136 l (83,250 gals.)

Tested Contaminant	Influent Challenge (µg/l) ¹
Alachlor	50
Atrazine	100
Benzene	81
Carbofuran	190
Carbon tetrachloride	78
Chlorobenzene	77
Chloropicrin	15
2,4-D	110
Dibromochloropropane (DBCP)	52
o-Dichlorobenzene	80
p-Dichlorobenzene	40
1,2-Dichloroethane	88
1,1-Dichloroethylene	83
cis-1,2-Dichloroethylene	170
trans-1,2-Dichloroethylene	86
1,2-Dichloropropane	80

HEALTH EFFECTING ORGANIC CONTAMINANT REDUCTION CAPABILITIES
PRODUCT FILE NUMBER 20090082
TABLE 2 OF 2 (continued)

Tested Contaminant	Influent Challenge (µg/l) ¹
cis-1,3-Dichloropropylene	79
Dinoseb	170
Endrin	53
Ethylbenzene	88
Ethylene dibromide (EDB)	44
Haloacetonitriles (HAN):	-
Bromochloroacetonitrile	22
Dibromoacetonitrile	24
Dichloroacetonitrile	9.6
Trichloroacetonitrile	15
Haloketones (HK):	-
1,1-Dichloro-2-propanone	7.2
1,1,1-Trichloro-2-propanone	8.2
Heptachlor (H-34, HEPTOX)	80
Heptachlor epoxide	10.7
Hexachlorobutadiene	44
Hexachlorocyclopentadiene	60
Lindane	55
Methoxychlor	50
Pentachlorophenol	96
Simazine	120
Styrene	150
1,1,2,2-Tetrachloroethane	81
Tetrachloroethylene	81
Toluene	78
2,4,5-TP (silvex)	270
Tribromoacetic acid	42
1,2,4-Trichlorobenzene	160
1,1,1-Trichloroethane	84
1,1,2-Trichloroethane	150
Trichloroethylene	180
Trihalomethanes (chloroform surrogate)	300
Xylenes (total)	70

Other Conditions: the contaminant reduction performance capabilities displayed for Table 2 of 2 were verified by testing conducted in accordance with NSF *International* Standard 53 by the National Water Quality Association. To qualify for the reduction of the organic contaminants listed above, the device must reduce the influent challenge concentration of chloroform at 300 µg/L ± 10% at each sample point by a minimum of 95%.

¹ = micrograms per liter (µg/l) are equivalent to parts per billion (ppb)

± = plus or minus

This device was tested under controlled laboratory, or field, conditions. The actual performance of this device for a specific end use installation will vary from the tested conditions based on local factors such as water pressure, water temperature and water chemistry.

The department is in no way endorsing this product or any advertising, and is not responsible for any situation which may result from its use.

Sincerely,

Glen W. Schlueter
Engineering Consultant-Plumbing Product Reviewer
Bureau of Integrated Services
Safety and Buildings Division
Department of Commerce
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GWS:gws